DEPARTMENT OF PUBLIC UTILITIES SAFETY POLICY MEMORANDUM

POLICY NUMBER: 9	DATE: April 17, 2002
TITLE: Control of Energy Sources	APPROVED BY: Martin McIntyre

REFERENCE

Title 8, California Code of Regulations, Chapter 4, Subchapter 5

Accident Prevention Manual for Business and Industry - Engineering and Technology, 10th Edition, National Safety Council

City of Fresno Injury and Illness Prevention Manual

DEFINITIONS

Authorized Person

A qualified person delegated to perform specific duties under the conditions existing.

Qualified Person

A person, designated by the employer, who by reason of experience or instruction has demonstrated familiarity with the operation to be performed and the hazards involved.

PURPOSE

This procedure establishes the minimum requirements for energy isolation whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources (i.e., electrical, hydraulic [fluid or liquid], pneumatic [air], etc.), and locked out, blocked out, or blanked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine, equipment, or release of stored energy could cause injury.

POLICY

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout. The authorized employees are required to perform the lockout in accordance with this procedure. All employees, upon observing a machine or piece of equipment that is locked out to perform servicing or maintenance shall not attempt to start, energize, or use that machine or equipment.

Only a qualified person may control energy sources. Employees who are not designated as a qualified person must notify their supervisor who can direct corrective action.

SEQUENCE OF LOCKOUT/BLOCKOUT/BLANKOUT

1. Notify affected employees when servicing or maintenance is required on a machine or equipment. Inform them the machine or equipment must be shut down and locked out to perform the servicing or maintenance.

2. The authorized employee shall refer to the source of the energy to identify the type and extent or strength of the energy that the machine or equipment uses, shall understand the hazards of the energy, and shall know the methods to control the energy.

3. If the machine or equipment is operating, shut it down by the normal stopping methods (depress STOP button, open switch, close valve, etc.).

4. Turn off the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).

5. Lockout/blockout/blankout with energy isolating device(s) so that the machine or equipment is isolated from the energy source(s). Apply a tag that indicates the reason for the lockout/blockout/blankout, the name of the individual performing the lockout/blockout/blankout, and the date of the lockout/blockout/blankout. When known, indicate the length of time the lockout will take place on the tag.

6. Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be released or restrained by methods such as grounding, repositioning, moving, blocking, bleeding down, etc.

7. Make sure that the equipment is isolated and/or disconnected from the energy source(s). First check that no personnel are exposed. Then operate the push buttons or other normal operating control(s) or test to make certain the equipment will not operate.

   CAUTION: Return operating control(s) to "NEUTRAL" or "OFF" position after checking the isolation of the equipment.

8. The machine or equipment is now locked out.

RESTORING EQUIPMENT TO SERVICE

When the servicing or maintenance is completed and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken:

1. Check the machine or equipment and the area around the machine or equipment to ensure that unnecessary items have been removed and the machine or equipment components/parts are operationally functional.

2. Check the work area to ensure that all employees and/or service personnel have been safely removed from the area.

3. Make sure that the controls are in neutral.

4. Remove the energy isolating devices and re-energize the machine or equipment.

   NOTE: The removal of some forms of blocking may require re-energization of the machine before safe removal.

5. Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready to use.

GROUP LOCKOUT

If a group or a number of employees are locking out an electric switch, for example, each employee shall have an individual lock to do so.

LOCKOUT EQUIPMENT

Each authorized person shall be issued individual locks with the only key for each lock. Master keys, duplicate keys, and the like are prohibited.

Each authorized person shall be issued such gang locks, tags, and other devices as necessary to perform the safe lockout of those energy sources with which he or she will likely come into contact.

SAFETY PRECAUTIONS

Suitable temporary barriers or barricades shall be installed when access to opened enclosures containing exposed energized equipment is under the control of an authorized person.

Conductive measuring ropes, ladders, tapes, or similar measuring devices shall not be used when working on or near exposed energized conductors or parts of equipment.

Conductive fish tapes shall not be used in raceways entering enclosures containing exposed energized parts, unless such parts are isolated by suitable barriers.

Prior to climbing poles or other elevated structures supporting overhead electrical lines or equipment, an inspection shall be made to assure that such poles or structures are in safe condition for the work to be performed. Where poles or structures are determined to be unsafe for climbing, they shall not be climbed until made safe by guying, bracing, or other adequate means.

TAGOUT ONLY PROCEDURES

Following the sequence outlined above for lockout of a piece of equipment, a tagout-only system (a system in which a lock is not used) is authorized in the following conditions:

Below-grade valves where you cannot attach a lock. An example of this would be a water valve located three feet below grade with a six-inch access. A piece of PVC inserted into the hole, marked as indicated above, would be acceptable, provided the access cover was replaced.

Where it is physically impossible to apply a lockout device. These sites must be identified to the Division Safety Team which will investigate methods of securing lockout devices.

Tagout-only systems are not authorized when a lockout device can be used. Non-availability of a lockout device is not adequate grounds for using a tagout-only system. Supervisors are to ensure that enough locks and tags are available for employee use.

LOCKON

There are conditions when a piece of equipment or machine may be locked in the on position. Under these circumstances a tag must be applied to the lock to indicate the date of the lockon, the person performing the lockon, and the reasons for lockon. Tag-only procedures may be used if locking the equipment in the on position is not possible.

TRAINING

Supervisors shall train authorized employees annually on the requirements of this policy.